

TABLE 2. Pumping costs and data for irrigation wells, Grant and Catron Counties, 2007

INPUT DATA

DEPTH CHARACTERISTICS:

STATIC.....	40
DRAW DOWN.....	10
TOTAL HEAD.....	50
CASING.....	70

GALLONS PER MINUTE (GPM)...	1000
WORK HORSEPOWER.....	13

EFFICIENCY FACTOR:

ELECTRICITY.....	0.540
NATURAL GAS.....	0.154
LP GAS.....	0.154
DIESEL.....	0.160

FUEL COST PER UNIT:

ELECTRICITY.....	0.00	CENTS/K wHr
NATURAL GAS.....	0.00	\$/MCF
LP GAS.....	0.00	\$/GAL
DIESEL.....	0.00	\$/GAL

FUEL PUMPING COSTS:

ELECTRIC WELL:

COST PER HOUR.....\$	0.03
COST PER ACRE INCH.....\$	0.01

NATURAL GAS WELL:

COST PER HOUR.....\$	0.03
COST PER ACRE INCH.....\$	0.01

BUTANE WELL:

COST PER HOUR.....\$	0.03
COST PER ACRE INCH.....\$	0.01

DIESEL WELL:

COST PER HOUR.....\$	0.03
COST PER ACRE INCH.....\$	0.01

TABLE 3a. Equipment summary for a 60 acre farm with above average management, Grant and Catron Counties, 2003.

EQUIPMENT ITEM & SIZE	ANNUAL		VARIABLE COSTS					FIXED COSTS		
	HOURS OF USE	NUMBER	TOTAL VALUE	FUEL AND LUBRICANT	REPAIR	FUEL,LUBE PER HR	REPAIR PER HR	DEPRE- CIATION	TAXES	TOTAL PER HOUF
TRACTOR 65 HP	81	1	2,400	532	31.22	6.56	0.39	138	14	1.87
PICKUP 3/4 TON *	50	1	15,000	425	150.00	8.51	3.00	3,000	78	61.55
CORRUGATER	3	1	250		0.03		0.01	33	1	10.69
BALER, PTO 2-WIRE	27	1	1,500		12.15		0.45	150	8	5.84
LAND PLANE 8 FT.	4	1	1,000		0.17		0.04	133	5	32.06
DISC 8 FT	4	1	700		3.23		0.87	93	4	26.06
PLOW (MOLDBOARD) 2-16 IN	8	1	250		1.97		0.25	33	1	4.41
DRILL 8 FT.	2	1	1,000		1.18		0.48	200	5	83.40
SWATHER, PTO 10 FT.	28	1	5,000		14.00		0.50	500	26	18.78
MOWER 7 FT SICKLE BAR	5	1	1,300		1.64		0.36	130	7	30.38
BUTANE WELL	0	1	11,400		0.00			1,520	59	
			39,800	958	216			5,931	208	

* 1/4 CHARGED TO FARM.

Table 4a. Livestock Production Parameters

NUMBER OF COWS	50
COWS PER BULL	20
NUMBER OF HORSES	2
REPLACEMENT RATE (%)	0.1
CALF DEATH LOSS (%)	0.02
YEARLING DEATH LOSS (%)	0
COW DEATH LOSS (%)	0.01
BULL DEATH LOSS (%)	0
CALF CROP (%)	0.92
PRODUCTIVE LIFE OF BULLS (YE/)	5
PERCENT SOLD AS YEARLINGS:	
HEIFERS	0
STEERS	0

Table 4b. Forage Sources for Livestock

	ACRES	AUMS/ ACRE	AUMS PROVIDED
ALFALFA	25.00	1.00	25.00
PERMANENT PASTURE	10	12	120
FOREST			297.5
BALED HAY (TONS)		115.7	289.25
TOTAL	35.00		731.75

Table 4c. STOCK COUNT CHART

CALVES WERE BORN IN: MARCH

SEASON	REPLACEMENT		YEARLING		STEERS	HEIFER	HORSES	TOTAL AUMs REQUIRED
	BULLS	COWS	STEERS	HEIFERS	CALVES	CALVES		
	1.4	1	0.7	0.7	0.5	0.5	1.25	
JANUARY	2.5	50			0	5	2	58.5
FEBRUARY	2.5	50			0	5	2	58.5
MARCH	2.5	50	5				2	59.5
APRIL	2.5	50	5				2	59.5
MAY	2.5	50	5				2	59.5
JUNE	2.5	50	5				2	59.5
JULY	2.5	50	5				2	59.5
AUGUST	2.5	50	5				2	59.5
SEPTEMBER	2.5	50	5				2	59.5
OCTOBER	2.5	50			25	25	2	81
NOVEMBER	2.5	50			0	5	2	58.5
DECEMBER	2.5	50			0	5	2	58.5
								732

Table 4d. FORAGE BALANCE CHART

	TOTAL AUMs REQUIRED		TOTAL AUMs SUPPLIED		HAY	
	ALFALFA	FOREST	PASTURE			
JANUARY	58.5	6.25	0	0	6.25	52.25
FEBRUARY	58.5	6.25	0	0	6.25	52.25
MARCH	59.5	0	0	20	20	39.5
APRIL	59.5	0	0	30	30	29.5
MAY	59.5	0	29.75	30	59.75	0
JUNE	59.5	0	59.5	0	59.5	0
JULY	59.5	0	59.5	0	59.5	0
AUGUST	59.5	0	59.5	0	59.5	0
SEPTEMBER	59.5	0	59.5	0	59.5	0
OCTOBER	81	0	29.75	20	49.75	31.25
NOVEMBER	58.5	6.25	0	10	16.25	42.25
DECEMBER	58.5	6.25	0	10	16.25	42.25
Total AUMs	731.5	25	297.5	120	442.5	289.25

TABLE 6. Alfalfa hay, flood-irrigated, budgeted per acre costs and returns for a 60 acre farm with above average management, Grant and Catron Counties 2007
Harvesting dates: June 15 - September 15

ITEM	PRICE	YIELD						TOTAL	
GROSS RETURNS									
HAY	138.00	3.00 TONS (STACKED)						414.00	
GRAZING	10.00	1.00 AUM						10.00	
TOTAL							424.00		
PURCHASED INPUTS									
	PRICE	QUANTITY	PURCHASED INPUTS		FIXED COST		TOTAL		
WIRE	0.39	25.71 LBS	10.03				10.03		
ESTABLISHMENT: Principal		6.00 YEARS			46.24		46.24		
: Interest					9.22		9.22		
CANAL WATER		60.00 AC. IN.	10.00				10.00		
SUBTOTAL			20.03		55.46		75.49		
PREHARVEST OPERATIONS									
	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL	
IRRIGATE (8X)		6.00 HR		35.40				35.40	
SUBTOTAL				35.40				35.40	
HARVEST OPERATIONS									
SWATHER, PTO (4X)	65 HP	1.12 HR		7.22	7.35	0.99	23.13	38.70	
BALER, PTO (4X)	65 HP	1.08 HR		6.97	7.09	0.90	8.33	23.29	
LOAD (4X)	3/4 TON	2.00 HR		12.90	17.01	6.00	123.10	159.01	
SUBTOTAL				4.20 HR	27.09	31.45	7.89	154.56	221.00
OVERHEAD EXPENSES									
DOWNTIME		1.05 HR		6.77				6.77	
EMPLOYEE BENEFITS				11.25				11.25	
INSURANCE			1.25					1.25	
LAND TAXES							2.02	2.02	
SUPERVISION AND MANAGEMENT				34.78				34.78	
OTHER EXPENSES			189.87					189.87	
SUBTOTAL				1.05 HR	191.12	52.80	2.02	245.94	
TOTAL OPERATING EXPENSES			11.25 HR	211.15	115.29	31.45	7.89	212.05	577.83
NET OPERATING PROFIT							-153.83		
INTEREST ON OPERATING CAPITAL	(13.29	@	0.08)		1.06		
INTEREST ON EQUIPMENT INVESTMENT							74.77		
RETURN TO LAND AND RISK							-229.66		

BUDGET SUMMARY

GROSS RETURN		424.00	
VARIABLE OPERATING EXPENSES	250.49		
RETURN OVER VARIABLE EXPENSES		173.51	(GROSS MARGIN)
FIXED EXPENSES	212.05		
NET FARM INCOME		-38.54	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	115.29		
NET OPERATING PROFIT		-153.83	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	75.83		
RETURN TO LAND AND RISK		-229.66	

TABLE 7. Permanent pasture establishment, flood-irrigated, budgeted per acre costs and returns for a 60 acre farm with above average management, Grant and Catron Counties, 2007
Planting dates: August 15 - September 15

ITEM	PRICE	QUANTITY	PURCHASED INPUTS					TOTAL
PURCHASED INPUTS								
SEED	2.50	20.00 LBS		50.00				50.00
CANAL WATER		18.00 AC. IN.						
SUBTOTAL				50.00				50.00
PREHARVEST OPERATIONS								
	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
PLOW (MOLDBOARD)	65 HP	1.31 HR		8.45	8.60	0.83	8.22	26.10
DISC (2X)	65 HP	0.62 HR		4.00	4.07	0.78	17.32	26.16
LAND PLANE (2X)	65 HP	0.72 HR		4.64	4.73	0.31	24.43	34.11
CORRUGATE	65 HP	0.54 HR		3.48	3.54	0.21	6.78	14.02
DRILL	65 HP	0.41 HR		2.64	2.69	0.35	34.96	40.65
IRRIGATE (3X)		2.25 HR		13.28				13.28
SUBTOTAL		5.85 HR		36.50	23.63	2.48	91.72	154.32
OVERHEAD EXPENSES								
DOWNTIME		0.90 HR		5.81				5.81
EMPLOYEE BENEFITS				6.57				6.57
INSURANCE			0.73					0.73
SUPERVISION AND MANAGEMENT				17.23				17.23
SUBTOTAL		0.90 HR	0.73	29.60				30.33
TOTAL OPERATING EXPENSES		6.75 HR	50.73	66.10	23.63	2.48	91.72	234.66

TABLE 8. Permanent pasture, flood-irrigated, budgeted per acre costs and returns for a 60 acre farm with above average management, Grant and Catron Counties 2007
Harvesting dates: March 1 - September 30

ITEM	PRICE	YIELD						TOTAL
GROSS RETURNS								
PASTURE	12.00	12.00	AUMS					144.00
TOTAL								144.00
PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS				FIXED COST	TOTAL
ESTABLISHMENT: Principal		15.00	YEARS				15.64	15.64
: Interest							7.17	7.17
CANAL WATER		32.00	AC. IN.	10.00				10.00
SUBTOTAL				10.00			22.81	32.81
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
MOWER	65 HP	0.45	HR	2.90	2.95	0.34	14.51	20.71
IRRIGATE (8X)		5.25	HR	30.98				30.98
SUBTOTAL		5.70	HR	33.88	2.95	0.34	14.51	51.68
OVERHEAD EXPENSES								
DOWNTIME		0.11	HR	0.73				0.73
EMPLOYEE BENEFITS				6.10				6.10
INSURANCE				0.68				0.68
LAND TAXES							2.02	2.02
SUPERVISION AND MANAGEMENT				12.71				12.71
OTHER EXPENSES				189.87				189.87
		0.11	HR	190.55	19.53		2.02	212.09
TOTAL OPERATING EXPENSES		5.81	HR	200.55	53.41	2.95	39.35	296.59
NET OPERATING PROFIT								-152.59
INTEREST ON OPERATING CAPITAL	(5.82	@	0.08)			0.47
INTEREST ON EQUIPMENT INVESTMENT								11.62
RETURN TO LAND AND RISK								-164.68

BUDGET SUMMARY

GROSS RETURN		144.00	
VARIABLE OPERATING EXPENSES	203.84		
RETURN OVER VARIABLE EXPENSES		-59.84	(GROSS MARGIN)
FIXED EXPENSES	39.35		
NET FARM INCOME		-99.18	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	53.41		
NET OPERATING PROFIT		-152.59	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	12.09		
RETURN TO LAND AND RISK		-164.68	

TABLE 9. Small grains pasture, flood-irrigated, budgeted per acre costs and returns for a 60 acre farm with above average management, Grant and Catron Counties, 2007
 Planting dates: August 15 - September 30
 Harvesting dates: December 1 - May 30

ITEM	PRICE	YIELD						TOTAL
GROSS RETURNS								
WHEAT PASTURE	16.00	8.00 AUMS						128.00
TOTAL								128.00
PURCHASED INPUTS								
PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS					TOTAL
SEED	0.13	90.00 LBS	11.70					11.70
LIVESTOCK FAC & EQUIP					5.00			5.00
CANAL WATER		24.00 ACRE IN.	10.00					10.00
SUBTOTAL								26.70
PREHARVEST OPERATIONS								
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
PLOW (MOLDBOARD)	65 HP	1.31 HR		8.45	8.60	0.83	8.22	26.10
DISC	65 HP	0.31 HR		2.00	2.03	0.39	8.66	13.08
CORRUGATE	65 HP	0.54 HR		3.48	3.54	0.21	6.78	14.02
DRILL	65 HP	0.41 HR		2.64	2.69	0.35	34.96	40.65
IRRIGATE (5X)		3.00 HR		17.70				17.70
SUBTOTAL								111.56
OVERHEAD EXPENSES								
DOWNTIME		0.64 HR		4.14				4.14
EMPLOYEE BENEFITS				6.17				6.17
INSURANCE			0.69					0.69
LAND TAXES					2.02			2.02
SUPERVISION AND MANAGEMENT				11.75				11.75
OTHER EXPENSES			189.87					189.87
SUBTOTAL								214.63
TOTAL OPERATING EXPENSES		6.21 HR	212.25	56.34	16.87	1.79	65.64	352.89
NET OPERATING PROFIT								-224.89
INTEREST ON OPERATING CAPITAL		(15.51	@	0.08)		
INTEREST ON EQUIPMENT INVESTMENT								1.24
								31.64
RETURN TO LAND AND RISK								-257.77

BUDGET SUMMARY

GROSS RETURN	128.00	
VARIABLE OPERATING EXPENSES	230.91	
RETURN OVER VARIABLE EXPENSES	-102.91	(GROSS MARGIN)
FIXED EXPENSES	65.64	
NET FARM INCOME	-168.55	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	56.34	
NET OPERATING PROFIT	-224.89	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	32.88	
RETURN TO LAND AND RISK	-257.77	

TABLE 10. Summary of per acre costs and returns, 60 acre part-time farm with above average management, Grant and Catron Ccnties, 2007

	ALFALFA ESTABLISHMENT	ALFALFA HAY	PERMANENT PASTURE EST.	PERMANENT PASTURE
	-----FLOOD-----			
		TONS		AUMS
PRIMARY YIELD		3.00		12.00
PRIMARY PRICE		138.00		12.00
GOVERMENT PAYMENTS		0.00		0.00
SECOND INCOME		10.00		0.00
GROSS RETURN		424.00		144.00
CASH OPERATING EXPENSES				
SEED	90.00		50.00	
FERTILIZER				
CHEMICALS				
CROP INSURANCE				
OTHER PURCHASED INPUTS		10.03		
CANAL WATER		10.00		10.00
FUEL, OIL & LUBRICANTS-EQUIPMENT	23.63	31.45	23.63	2.95
FUEL-IRRIGATION				
REPAIRS	2.48	7.89	2.48	0.34
CUSTOM CHARGES				
LAND TAXES		2.02		2.02
OTHER EXPENSES	0.73	191.12	0.73	190.55
TOTAL CASH EXPENSES	116.84	252.51	76.84	205.85
RETURN OVER CASH EXPENSES	-116.84	171.49	-76.84	-61.85
FIXED EXPENSES	91.72	210.03	91.72	37.33
TOTAL EXPENSES	208.56	462.54	168.56	243.18
NET FARM INCOME	-208.56	-38.54	-168.56	-99.18
LABOR AND MANAGEMENT COSTS	68.90	115.29	66.10	53.41
NET OPERATING PROFIT	-277.46	-153.83	-234.66	-152.59
CAPITAL COSTS				
INTEREST ON OPERATING CAPITAL		1.06		0.47
INTEREST ON EQUIPMENT INVESTMENT		74.77		11.62
TOTAL CAPITAL COSTS	0.00	75.83	0.00	12.09
RETURN TO LAND AND RISK	-277.46	-229.66	-234.66	-164.68

TABLE 11. Whole farm summary, Grant and Catron Counties, 2007

GROSS RETURNS		
ALFALFA HAY	25 ACRES	
CROP		10,350.00
GRAZING		250.00
PASTURE	10 ACRES	
GRAZING		1,440.00
WHEAT PASTURE	0 ACRES	
GRAZING		0.00
LIVESTOCK		51,880.60
GROSS RETURN		63,921
CASH OPERATING EXPENSES		
FORAGE		2,091.63
LIVESTOCK		17,556.78
SEED		460.00
FERTILIZER		0.00
CHEMICALS		0.00
CROP INSURANCE		0.00
OTHER PURCHASED INPUTS		250.67
CANAL WATER		350.00
FUEL, OIL & LUBRICANTS-EQUIPMENT		957.57
FUEL-IRRIGATION		0.00
REPAIRS		215.59
CUSTOM CHARGES		0.00
LAND TAXES		70.62
OTHER EXPENSES		6,687.80
TOTAL CASH EXPENSES		28,641
RETURN OVER CASH EXPENSES		35,279.95
FIXED EXPENSES		4,861.81
TOTAL EXPENSES		33,502.46
NET FARM INCOME		30,418.14
LABOR AND MANAGEMENT COSTS		3,824.11
NET OPERATING PROFIT		26,594.03
CAPITAL COSTS		
INTEREST ON OPERATING CAPITAL		31.24
INTEREST ON EQUIPMENT INVESTMENT		1,985.41
TOTAL CAPITAL COSTS		2,017
RETURN TO LAND AND RISK		24,577.39

LAND VALUE	RETURN TO RISK*	RETURN ON INVESTMENT**
1,000.00 /ACRE	22,177.39	0.27
2,000.00 /ACRE	19,777.39	0.17
3,000.00 /ACRE	17,377.39	0.12
4,000.00 /ACRE	14,977.39	0.10
5,000.00 /ACRE	12,577.39	0.08

* RETURN TO LAND AND RISK MINUS (INTEREST RATE TIMES LAND VALUE TIMES ACREAGE)

** NET OPERATING PROFIT DIVIDED BY (MACHINERY AND EQUIPMENT VALUE PLUS LAND VALUE)